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Omaha Medical College

Cloud Stacks

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DONALD MACRAE, JR., M. D.
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The O. M. C. Pulse.

VOLUME III. JANUARY, 1900. NUMBER 4

WITH THE ARMY IN THE PHILIPPINES.

(By DONALD MACRAE, Jr., Late Surgeon Fifty-first Iowa Volunteers.)

A paper of this character is a little out of my line. However, having promised your editor a short resume of my experience while serving in the Philippines with the Fifty-first Iowa Volunteer infantry, I will attempt to give you a slight idea as to the duties of an army surgeon.

I was mustered into the service of Uncle Sam May 7, 1898, at Des Moines, Ia., where the troops from that state had been mobilized. Immediately after entering the service I was obliged to take part in the examinations of the men. Upwards of six thousand men were examined before there could be found a sufficient number of able-bodied men to fill the four regiments required from Iowa. Three long tedious weeks were consumed in this way. In many respects this examination was a most interesting lesson to me. Until entering the army I never fully realized the numerous physical imperfections of the average man. Imperfections sufficient to cause his rejection by the examining board. After divesting himself of every article of clothing the candidate is admitted to the examining room. After taking in the general contour of the subject he is weighed and measured, eyes tested, lungs and heart thoroughly examined. Every joint is manipulated, anus and rectum exposed, penis and scrotum along with the external inguinal ring are in turn explored. Varicose veins are looked for. Old scars, whether adherent or free, have their importance. And finally the feet, which in ordinary life insurance examinations are of no importance, to the army surgeon become one of the most important points, requiring keen observation and

close study. It is really astonishing to find one out of every three or four young men physically unfit for army service. The feet are the most frequent cause for rejection. A man with vicious corns, bunions, hammer toes or calluses on the soles of his feet has no place in the army. Next comes the weight. The majority rejected for this cause are below the required standard. Next narrow chested subjects with poor expansion. Then follow defective vision, varicose veins, varicocele, hernia, heart disease, adherent scars, piles, adherent prepuce, absence of molar teeth, subjects under five feet four inches in height and any number of promiscuous abnormalities. Our records showed about one out of three men with varicocele, almost invariably on the left side, This condition, unless of very large size, will not reject. An old scar adherent to bone or even to muscle when sufficient to interfere with perfect movement of the part will reject. During a war hernia cases will be accepted when the rupture is retained by a well-fitting truss. In my opinion, based on after experience, this is a great mistake. Small varicose veins below the knee may be accepted, but large ones or those extending above the knee will be thrown out. Single testicle will not reject, but an undescended organlying in the inguinal canal will, for obvious reasons. Many ridiculous incidents happened here which might be well to relate at this point. I have known men to return for a second examination, having been unsuccessful in the first. They would change their names and even disguise their faces in some way. They may be successful the second time, especially if examined by a different surgeon. It is a difficult matter, in a room full of naked men, to remember each individual. In fact "all naked men look alike to me." It is laughable to see a tall, lean, lank boy, fearful that he may be rejected on account of his weight, crouch down under the measure and try to press harder on the scales, at the same time suffering the torments of the damned with a greatly overdistended bladder, the result of drinking enormous quantities of water before entering the room. In fact I have seen many

of these fellows running around the room with the urine pouring from the meatus. On the other hand, pathetic scenes may be witnessed in the examining room. Some when rejected will sit down and cry like babies, while others become angry and long for the time and opportunity to whip all the doctors in the room. And finally, many, after being rejected by the surgeon, were admitted and accepted on account of their influence with the party in power. This was especially true in the case of rejected officers.

Soon after being mustered in the regiment was ordered to San Francisco, being assigned to the Eighth Army Corps. After an exciting trip of six days across the continent, and being received magnificently by the people of 'Frisco, we were dumped out on the sand plain called Camp Merritt. This proved to be the greatest blot on the pages of the history of the Eighth Army Corps Volunteers. Our regiment was placed on a plain of sand which was at one time used as a Chinese graveyard. It was not an uncommon sight to see a soldier thrust his ramrod into the sand and soon afterwards exhume the bones of some departed mongolian. The soil was of sand and so soft that at every step one would sink to his shoe top. The camp sloped gently to the west with the tents upon the low ground, while the water closets, consisting of a shed over a hole in the sand, were upon the highest point. Almost within stepping distance from these sinks were located the cook tents. Is it a wonder that so many poor boys died on the sands of Camp Merritt? Was some one to blame? We fought for two months against the rottenness of things and at the end of this time, thanks to the good people of San Francisco, we were transferred to Camp Merriam, which is located in the Presidio, territory of the United States. Just prior to this change I was detailed in charge of the surgical department of the Field General Hospital, in the large brick barracks on the Presidio grounds. Here again the conditions were far from satisfactory. Three months after war was declared found the hospital

crowded to overflowing, with practically no conveniences except wire cots. In many cases the sufferer lying next to the wire, with only the army blanket to cover him. The majority wore their flannel shirts in bed. Vermin were more than numerous. The nurses, while anxious to do their best were totally incompetent, being made up, at this time, of young boys from the ranks who did not know one end of a thermometer from the other. Measles and typhoid fever were daily on the increase. Limited accommodations required the early discharge of patients with the result that many returned to die with some complication of the former disease. This was especially true of measles, the patient often returning with a diagnosis of pleuro-pneumonia. The usual excuse for these conditions is that the country was unprepared and the material was not at hand, etc., etc. The fact remains, that the hospital was within half an hour's ride from the heart of the great city of San Francisco, where in twenty-four hours anyone paying for them might obtain cheap night-gowns, shirts, mattresses, medicines and surgical instruments enough to supply a hospital of two thousand beds. Something was wrong and every man in the Eighth Army Corps and every citizen of San Francisco will bear me out in this. The camp ground at the Presidio looked out upon the Golden Gate and was altogether a most beautiful spot. Under these more favorable conditions sickness decreased until our departure from America.

After being in the General Hospital about two months I was ordered back to my regiment which soon embarked on the troopship Pennsylvania, steaming away from 'Frisco on Nov. 3, 1898. Three hundred of our regiment were discharged on account of sickness, or died while at camps Merritt and Merriam. Six days were consumed on our trip to Honolulu. Before entering the harbor our big boat struck upon the coral reefs and all hands prepared for a swim, which was later found unnecessary. Honolulu is a beautiful garden of tropical plants. It lies upon the lowlands touching the sea, while in the background, grand and gloomy of

aspect, may be seen many mountains and extinct volcanoes. Typhoid and malarial fevers were the diseases most prevalent among the soldiers at this station and the United States hospitals were crowded to overflowing. My four days here were spent in sight seeing—paying but little attention to prevalent diseases. Thirty-three men developed malarial fever before leaving this port and were left behind.

Three weeks more of water and we passed the north end of Luzon Island. Rounding the point our ship skirted down the west coast of the island for two hundred and fifty miles. Then we entered a hole in the shore, as it were, and found ourselves in Manila Bay, with Manila forty miles away. Manila is without a dock for large ships so we dropped anchor one mile out and immediately sent our few sick ashore. We remained in the bay almost one month, the troops being allowed shore leave a few hours on two occasions. Then we were ordered to Iloilo to relieve a Spanish garrison hard pressed by the Filipinos. We at once set out with the Newport, Arizona and U. S. cruiser Baltimore. We arrived at Iloilo only to find the Spaniards gone and the Tagolos in possession of the city. The Filipinos would not hear of our landing, therefore we remained in the bay awaiting orders. One month from this time we were ordered back to Manila, having been on a crowded troop ship for three long months. Our food was absolutely rotten and full of vermin and yet our little ship hospital was almost empty. I dilate upon the above experience in order to emphasize the fact that a thousand men, poorly fed, may be cooped up on a dirty transport without a single case of serious illness or a death. Twenty-four hours later found us in Cavite where we landed Febr. 3, 1899, one day before the breaking out of the insurrection.

Of course we were startled when, on the night of Feb. 4, the bugle called us to arms. Dewey's big ships in the harbor were belching forth fire and flame, while the roar of musketry and cannon around Manila was indeed deafening and a terrible sight to

witness. My first thought was to collect everything in the way of field and medical chests and have them placed on litters. This was done but I found the weight too great for any four men to carry. Finally I compromised by taking as much as each man could carry. This arrangement proved satisfactory for a few hours but later when the sun came out and the men became weary they would drop first one thing and then another until nothing but the hospital pouches were retained. Let this be a lesson to any of my readers who may have an army bee in their bonnet. Do as I did later. Carry a canteen full of water and a little pocket case of instruments. Have your hospital steward or orderly, with his orderly pouch strapped across his shoulders, close beside you. These pouches contain quantities of gauze, plaster, minor instruments, bandages, hypodermic case with tablets, wire for splints, etc. Besides these each hospital private carries a hospital pouch which is filled with gauze, bandages, scissors, artery forceps, stimulants, etc. These you will find sufficient for field use.

Each volunteer regiment in the Philippines was supplied with three surgeons, three hospital stewards and eight hospital privates. The stewards oversee the work of the privates, act as orderlies for the surgeon on the field, etc. The privates act in the capacity of nurses in quarters. While on the field they are ordinarily used as litter bearers or to attend to wounds in the absence of the surgeon. However, on account of the irregular country over which we were obliged to march, and the long distances to overcome before the wounded could be deposited at the dressing stations, the Chinaman is employed as the real litter bearer in the Philippines. Four Chinamen carry the litter upon their shoulders while one hospital private commands the Chinamen. In this way, with eight hospital privates, thirty-two Chinamen are required for each regiment. In fact this number is entirely too small for a full regiment in actual warfare. A regiment, when fighting in the Philippines, is thrown out in line of skirmishers. In other words, all the men march in one line, each man

several yards from the other, so that the regiment may form a line one mile in length. The line is divided into eight sections, each section containing a hospital private and his four Chinamen. In the same manner the line is divided by the two or three surgeons, one usually remaining behind at a dressing station. The surgeon should be accompanied by his steward. It will not do for a surgeon to keep too far in the rear for the following reasons: First, he may meet a few bolo men, who may not sufficiently recognize his rank and proceed to perform a laparotomy upon his anatomy with most distressing results, as these fellows never sterilize their instruments before operating. Second, he may lose the line completely and become lost. On the other hand it is not well to be too near the line as then many wounded may fall to the rear without his knowledge. So the poor surgeon and his assistant are between the devil and the deep sea. He must stand alone and be shot at but cannot return the compliment. He may not become lost in the excitement of battle as the ordinary soldier does. All he can do is to watch for the wounded, and wish that he had never left home, accompanying the wish with fleeting visions of beefsteak and ice water. A wounded man after receiving attention on the field is carried to the dressing station, which may be two or six miles to the rear. If the roads are fair ambulance may trail a mile behind the line. From the dressing station the wounded are carried to the field hospital, when one is in existence. In the Philippines they are seldom used, the men being taken direct to Manila. Manila has three hospitals, First, Second and Third Reserve. They are crude affairs and it is hoped that improvements are now being made in this line.

The Mauser, which is a most humane weapon, was responsible for most of our killed or wounded. If death is not almost instantaneous the individual is very likely to recover. I have seen all kinds of Mauser wounds, of the knee joint, tibia, fibula, femur, etc., with the invariable result that the subject was back on duty within three or four weeks. This leads me to the first aid package

which each soldier is required to carry. Each pack is a little larger than a bunch of small fire crackers. Within may be found one gauze bandage, two sterile pads and a larger triangular handkerchief, all encased in a rubber sack. If a hospital man is not immediately at hand the wounded man or his comrade at once opens the pack and applies the two aseptic pads, one to each opening, and then wraps the bandage around the part. In this manner a compound condition is converted into a simple condition. In my opinion the first aid pack has saved more lives and limbs than all other agencies put together. The poor Filipino afforded the surgeon an opportunity to demonstrate his skill. As a rule a large gun wound meant amputation. We cared for these unfortunates as best we could but at times this was sickeningly little, if I may use the expression.

As to prevailing diseases, smallpox, malarial fever, dysentary and the dhobie itch, with a few cases of leprosy and beri-beri, and you have the whole thing in a nutshell. The dhobie itch, one of the ring worm family, is a persistent little beast but usually yields to antiseptic treatment and keeping opposing surfaces apart.

The Tagalo is not half as bad as some would have us believe. He is a man, religious, loves his family, is smart, ingenuous and altogether a most desirable citizen, in my opinion.

Finally let me say that the young surgeon in the army, or the older man appointed from civil life, is so far ahead of the old army surgeon that he should not be spoken of in the same breath. The latter is the fellow (exceptions to the rule) who has spent twenty years in a post, doctoring a dozen squaws. I say he is the man who is placed in charge of our large hospitals (?) and who holds the lives of our boys in his hands. His word is the only word. He is the man who thinks it is a greater honor to be a Lieutenant Colonel than to be a doctor. There are exceptions to this rule. Maj. Morris and Maj. Eddy, now in the Philippines,

are exceptionally bright men, men who would lead the profession in any city.

September 23, 1899, we set sail aboard the transport Senator and after spending a week in Japan arrived in God's country October 22, 1899. Lieut. Tinley and hospital steward Witter, two of the best men in the Eighth Army Corps, and now studying at the O. M. C., will enlighten their fellow students on the beauties of Japan.

HYDROCHLORIC ACID IN THE STOMACH.

(By A. C. Stokes, M. S., M D.)

No more interesting subject presents itself at this age of medical progress than diagnosis of stomach diseases. Chief among the methods of diagnosis may be mentioned chemical analysis of stomach contents. It is our purpose in the following few lines to call attention to some few of the facts relative to the practical part of this question.

We must not expect too much of chemical investigations. They are fallible. Of course every chemical test is absolute if conditions are always alike. This is however oftentimes difficult to produce and manage. Nature does not seem so munificent in her gifts nor does she unfold with unerring absolutism her knowledge to man. Into no matter what branch of science you turn you find the theory simple, complete and exhaustive but in practice it is complexed, approximate and partial. So it is with chemical tests in medicine, or in fact with any symptom. A chemical test is absolute, but one cannot always control all of the conditions when the absolute results of a chemical test are desired. It is of these conditions that I wish to say a few words.

First, in regard to the "test meal" to be given patients who are to have their stomach contents examined. There are several forms of this meal. Dr. Ewald's test meal consisted of a roll and a glass of water, taken about an hour before the contents were to be removed. Any chemist knows that in an ordinary roll it is an

easy matter to find lactic acid. Hence the often times claim for the presence of lactic acid in contents after this meal had been used.

Boas first noted and corrected this error. Boas' test meal consists of a quart of distilled water to which has been added about two tablespoonfuls of rolled or cracked oats. This is then boiled down to a pint, allowed to cool and is then ready for use. This should be used at all times if possible. It is by far the most satisfactory of all test meals which have from time to time been described. Care must be had that the vessels used in handling and boiling this material be clean.

Many physicians when pumping out a stomach do not recall the fact that the chemist, in order to obtain exact information as to quantity of acid present in the stomach contents, must know how much water has been used in the lavage process. Otherwise it is impossible for him to more than guess at the quantitative relations in the stomach. The water should, if possible, be distilled and sterile, else oftentimes it contains substances which materially affect the results, e. g., organic matter, bacteria and ammonia are common constituents of ordinary water.

Properly the stomach should be washed out once before the contents are tested for indications of cancer or ulcer owing to the fact that frequently there remain in the stomach old fermenting particles of food which have been held for some time in the folds of the mucous membrane. For determination of catarrhal or inflammatory conditions this is not necessary and is perhaps better not done.

The substances in the gastric juice which we most appreciate in chemical medicine are hydrochloric acid, lactic acid, butyric acid, rennet and pepsin. In this paper we must confine ourselves to hydrochloric acid. With that in view I append the following table as giving in a concise way the relation of hydrochloric acid to disease of the stomach and its pathology.

Disease.	General Appearance.	Reaction.	Free Hydrochloric Acid.
Acute gastritis.	Partly digested food, mucous, frequently green color, referable to pigment.	Feebly acid.	Absent.
Simple chronic gastritis.	Imperfectly digested food, biliary coloring matter, mucous.	Acidity never increases.	Diminished or absent.
Mucous gastritis.	Much mucous, imperfectly digested food.	Slightly acid or neutral.	Usually absent.
Chronic atropic gastritis.	Unaltered food. No mucous.	Neutral or Alaline.	Absent.
Gastric ulcer.	Blood frequently present.	Usually increased acidity.	Frequently increased.
Simple dilation.	Particles of undigested food in various stages of decomposition.	Acidity normal or increased.	More frequently increased, may be diminished.
Carcinoma.	Coffee ground matter in vomit.	Acidity below normal.	Absent or diminished.

We will now give our attention to discussions of tests for hydrochloric acid. Of these there is indeed little to be said except to describe the most satisfactory ones. There are, as you are no doubt aware, several of them. For rapid clinical work the presence of H Cl may be quickly detected by the use of a. 1 per cent solution of congo red. This, which is a carmine color, in the presence of hydrochloric acid turns blue. This test is only of value as indicating the presence or absence of hydrochloric acid and gives no information regarding the amount, which is after all the most valuable aid in diagnosis.

The quantitative tests may be made as follows:

Solutions required:

1. Decinormal solution of sodium hydroxide, i. e. four grams of Na O H (stick) dissolved in 1000 c. c. of distilled water.

2. 1 per cent solution of phenolphthalein (alcoholic.)

3. 1 per cent aqueous solution of alazorin.

4. .5 per cent alcoholic solution of dimethyl-amido-azo-benzol.

It happens that the alkaline compound Na O H reacts with all acid, both organic, mineral and inorganic. Phenolphthalein gives a red color with alkali when acid is all neutralized. Alazorin does not react with loosely combined hydrochloric acid but gives a pure violet color with free H Cl Dimethyl-amido-azo-benzol gives with free H Cl a red color, titration is continued until it gives a yellow color.

Three separate portions of gastric contents are taken, say each containing 10 c.c. One of these parts is titrated against the decinormal solution of Na O H and it is carefully observed how many c. c. the burette reads. Say we find that it requires 10 c. c. of the decinormal Na O H solution to bring about the red color of the phenolphthalein added. For since every c. c. of decinormal solution neutralizes .00365 grams of H Cl it is evident that 10 c. c. will neutralize .0365 grams.

If it is found that it requires 6 c .c. of decinormal solution

to arrive at the end reaction with alazarin there is thus 10 c. c.— 6 c. c. equals 4 c. c. of amount of solution of Na O H required to neutralize the H Cl combined with albumen, i. e. 00365 grams times 4 equals 0146 grams of H Cl combined with albumenoid matter.

With dimethyl-amido-azo-benzol as an indicator it requires 2.3 c. c. of the decinormal solution to indicate the neutralization of all the free H Cl we have then the following: .00365x2.3 equals .008395 grams of free hydrochloric acid.

Thus the following table:

Free hydrochloric acid equals .008395; indicator, dimethyl-amido-azo-benzol.

Combined H Cl equals .0146; indicator, alazorin.

Total acidity organic acids and salts equals .0365; indicator, phenolphthalein.

The organic acids and salts would then be found by subtracting from total acidity the sum of free H Cl and combined H. Cl., thus: .0365—(.0146 plus 008395) equals .013505 per cent acidity due to organic acids and salts.

This process seems on paper a little lengthy but when actually done in the laboratory it occupies only a very short period. There are numerous other methods but this is the one most commonly used. It is very accurate when properly handled and applied. The chief trouble for the inexperienced man in these tests is to properly make up the solutions. The decinormal solution of Na O H is sometimes quite difficult to carefully weigh out and this should be standardized by a standard solution of oxalic acid. The second trouble for the uninitiated in these tests is to stop at the exact point of neutralization of the acid and alkali. They invariably pass the end reaction unless they are accustomed to this work.

If properly conducted and skillfully executed these tests give to the general practitioner very valuable information.

This paper has now extended to a rather unhappy length and at some future time we will discuss lactic acid and its use as a diagnostic agent, with tests.

The O. M. C. Pulse.

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ARTICLES on subjects coming within the scope of the different departments of this journal are solicited from all our readers. Write on one side of the paper only; say what you mean to say, and be brief and plain.

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Editorial.

Dr. Elmer Clapp of Iowa City, Ia., will address the faculty alumni and students January 30th.

Dr. George Mogridge of Glenwood, Ia., will lecture February 20th. His subject will be "Unfortunates."

Dr. J. K. Emmert of Atlantic, Ia., lectured before the students Dec. 22d, on the subject of Judicial Control of Tuberculosis. Dr. Emmert presented the subject in a manner indicating careful study of the spread of this disease and the means of pre-

vention. The latter he showed to be possible by the enactment of laws which would compel all to guard against it and those affected from spreading it.

Judge W. W. Keysor has begun his course of lectures on medical jurisprudence. This course comprises twenty lectures, ten each year for two years.

Alumni would do well to take note of the elk antlers that adorn the college walls, the gift of Dr. A. P. Haynes, class of '86. Do as he did a few years ago and send in something that may increase our possessions.

The young physicians of Omaha have organized a new local medical society, The Omaha Medical Club. Membership is limited to physicians who have practiced less than five years. Dr. H. S. Lyman is president.

Dr. Donald Macrae, Jr., relates in this issue of THE PULSE some of his experiences as surgeon in the Fifty-first Iowa, U. S. V. The doctor's qualifications before entering the army were such that his statements become authoritative and of much value in learning the true state of affairs in the hospital service of the army. He gives credit where credit is due and points out some fallacies and one wonders how they could exist with the remedies apparently so near at hand. Dr. Macrae has resumed his work at the O. M. C. as professor of anatomy.

A recent announcement indicates that every patient applying for treatment at the college dispensary must come under the observation of at least two members of the senior class. Heretofore many cases have been cared for in the small clinic rooms while all of the seniors were in the large clinic room. This revision of clinical instruction will give the seniors more chances to

make diagnoses and will, no doubt, be agreeable to them. All of the interesting cases can not be brought before the whole class because a medical case may come on the day surgical clinics are scheduled. This will be partially avoided under the new regime.

Dr. H. Gifford was recently elected president of the Omaha Medical Society. Dr. J. M. Aikin was re-elected secretary. At the monthly meeting, Jan. 23rd, Dr. W. O. Bridges read a paper on Three Abnormal Cases of Obstetrics. Dr. B. B. Davis read a paper on Hydrocele.

THE CADAVER.

Before me in this dingy room
Lies the belongings of the tomb;
A human form of human kind,
Devoid of life and strength and mind.
Disease and death their part have done,
Laid hold this form and victory won;
And what was once God's noblest mould
In death now is pallid and cold.

Must I with knife and hook and saw
Continue the destructive law
Which brought this form from health and youth
To realize the solemn truth
That soon the years of earth draw nigh
And bring to each a clouded sky,
When earthly visions fade away
And leave naught but a mold of clay?

It matters not, why query more?
This form lies silent as before.
No act of mine, no word or deed,
Can make this one to give me heed.
So I with knife and saw and hook
Will open this God's noblest book
And read therein what truth I find
That I may bless my human kind.

—FRESHMAN.

Clinical Department.

HOMER DAVIS, '00, Editor.

Clinics were not as numerous as usually during the holidays owing to the cold weather.

Dr. Gibbs now holds a clinic at the college on Saturday, in the large lecture room at the usual hour. As usual the clinic is large.

To avoid crowding at special eye clinics by Dr. Gifford at different hospitals the senior class has been divided into three sections.

The number of cases, medical, surgical and special brought before the class this month up to and including Jan. 20th, is eighty-four.

A typical case of scarlet fever came to Dr. Gibbs' clinic on Saturday, Jan. 20th.

The first operation for femoral hernia brought before the classes this year was done by Dr. Davis at the Immanuel hospital, Jan. 20th.

Dr. Jonas gave the senior class a practical demonstration of the use of the Harris segregator, at the M. E. hospital, Jan. 17th.

Dr. Gifford is experimenting with hollow bone balls to permanently fill out the sclerotic coat of the eye after evisceration. This promises to be an improvement over the use of decalcified bone, sponge, glass balls or aluminum balls.

Dr. Milroy urges the importance of thorough diagnosis for the satisfaction of physician and patient. As an illustration of the importance of this: A capable young physician of this city made a hasty examination of a patient and prescribed for him. The patient felt dissatisfied and went to another physician, also of this city, because, as the patient said, "the young doctor

did not examine me thoroughly and seemed to be in too much of a hurry."

The use of rubber finger cots in digital examinations of the rectum, septic wounds or abscess cavities is recommended by the clinicians as a protective against the so called transmission of infection from one patient to another.

Silk worm gut is colored blue with dyes at the M. E. hospital. This is a permanent harmless stain for this material. The colored suture material possesses the advantage of being more easily seen in obscure places than the uncolored suture.

Thomas K., the well-fed cook, appeared at Dr. Gibbs' clinic on Jan. 13, for his annual clearing out of tape-worm. Tenderloin steak, rare, done in the finest of butter, is good eating, but it has its penalties.

Dr. Jonas is using silverized catgut in all of his operations where catgut sutures are indicated. Lactate of silver is used to prepare the catgut. The object sought is to insure the suture material from infection by the patient during the process of repair.

Dr. Owen held a special clinic for seniors at the Presbyterian hospital Tuesday morning, Jan. 9th.

Among other cases, Dr. Hoffman has shown two typical cases of herpes zoster or "shingles" to the classes at the college.

At the Immanuel hospital instruments are sterilized for an operation by boiling for ten minutes in a one per cent solution of bicarbonate of soda. Gauze, towels, gowns, etc., are folded loosely and placed in a cylindrical metal sterilizer having a tight cover at one end. The other end is turned into a deep pan containing water. The water is then boiled for one hour. The tight cover causes considerable steam pressure in the sterilizer. After boiling for an hour the water is turned out of the pan and the cover is removed for a few minutes to allow all steam to escape. This leaves the fabrics practically dry.

The part for operation is prepared by being thoroughly

scrubbed the day before with soap and water and covered with a soap poultice. The soap poultice thoroughly softens the epidermis. Just before operation the soap poultice is removed and the part is again scrubbed with soap and water, followed by alcohol or ether, or both, then a bichloride solution of one in one thousand, then alcohol.

The following is a further report on the case reported in the last issue of THE PULSE by E. L. Rolhfe, '00. This report is taken from Dr. Milroy's clinic book. In reading the report it is to be noted that the patient's general condition is rated as excellent. Also note that the temperature and pulse are each below 100: "Jan. 12, 1900.—Patient took cold Dec. 25. Had some cough and soreness in left chest, also some fever. Recovered from this readily. At present temperature is 99.9 degrees, pulse 92. Appetite and digestion good. General condition excellent. Weight 135 lbs., this was the normal weight before sickness began. Physical signs: Puerile breathing in left scapular region; friction sounds in right scapular region; bronchovesicular breathing and moist rales over a small area in right infraclavicular region. Has been taking strychnine sulphate gr. 3-16 t. d. continuously for about one year. Same treatment continued.

A CASE OF LEUKAEMIA.

(By W. H. BETZ, '00.)

The case of a little girl with a marked enlargement of the spleen extending from the seventh intercostal space to within two inches of the crest of the ilium, somewhat rachitic tendency and a general anaemic appearance as presented in Dr. McClanahan's clinic, afforded a rare opportunity for the collection of blood specimens. It is to be regretted that the case should have been lost track of. Relying upon a faithful promise for a return of the patient, when a blood count was to be made before the class, we were content with a few blood smears from an ear

puncture. However these have proved so interesting that a description of the findings has been requested.

A sluggish blood flow which impeded the collection of specimens was noticed. The macroscopic appearance of the blood showed a deficiency in luster but could not be termed milky or chocolate colored. Under the microscope an excess of leucocytes was noticed immediately. The tendency to form rouleaux was not marked, Poikilocytosis was not noted. A diminished haemoglobin was inferred, but no exact reading had. After fixation in the thermostat at 120 degrees C, the smears were stained with Ehrlich's triacid stain, others with haemotoxylon and eosin, and a few with methylene blue. Under the microscope the following were noted: Red blood cells, no count made, but nucleated forms noted. Normoblasts principally and a few megaloblasts. White cells, percentage from approximate count of fifty fields under one-twelfth oil immersion resulted as follows:

	Per Cent.
Polymorphonuclear neutrophiles	53
Large lymphocytes	3
Small lymphocytes	9
Myelocytes	32
Eosinophiles	3

Intermediate forms numerous.

Leucocytes per field 1-10, average 4.

Conclusions to be drawn from the observations taken: Even in the absence of a blood count an increase of the white blood cells must be presumed, while the approximate differential count of these cells by identifying the myelocytes (myelocytamia) in the presence of numerous nucleated red blood cells point unmistakably to leukaemia. The percentage of large and small lymphocytes in the absence of superficial glandular enlargement is not sufficient to indicate lymphatic leukaemia, while the myslocytes are almost as pathognomonic of splenic leukaemia

as granular and epithelial casts are of nephritis. A diagnosis of lieno myelogenous leukaemia is accordingly based on the clinical and microscopical evidence.

Points of interest in the study of the myelocyte were the irregularity of size and varying affinity for stain, the unfinished character of cells, referred to by Cabot, many in fact almost taxing the imagination to classify. A similarly wide variation in the appearance of the nucleated red blood cells occurred. However, the stain of their protoplasm was sufficiently typical for identification. With so high a percentage of myelocytes the consideration of a differential diagnosis from pseudo-leukaemia and certain forms of malignant disease is hardly to be raised. As for prognosis it may be said that the blood type is essentially chronic and unfavorable to cure.

Since the above report was sent in the patient has returned and I have made a blood count as follows: Red blood cells 3,200,000, white blood cells 138,000. I have secured spreads which will be stained for differential study. Clinically the patient is more emaciated, with a few superficial glands enlarged.

AN O. M. C. STUDENT IN THE PHILIPPINES.

(By R. V. WITTER, '00.)

As army life of a medical student may be of interest I will give a little of my experience. June 14, 1898, I became a member of Co. L, Fifty-first Iowa, U. S. V., and after a short time was transferred to the hospital corps.

My first duty as a hospital nurse was in the hospital tents at Camp Merritt, located on the sands, formerly a graveyard, near San Francisco. The division hospital to which patients from our regiment were transferred, was very little better as far as the care and life of the patient were concerned. We were at Camp Merritt two months and might have been there until ordered to Manila, what was left of us, if San Francisco had

not interceded. We were then placed in Camp Merriam, in the Presidio. Soon after this I was ordered to the division hospital for duty. This consisted of three large brick buildings ,which could accommodate two thousand cases. All kinds of cases were brought in daily from the camps, and the means at hand were so inadequate that patients were not properly cared for. The insufficient amount of bed linen, drugs and especially competent nurses was not remedied for months. Here my first experience was in quarantine with a case of facial erysipelas. There I lived, slept, ate and cared for my patient. A few yards away walked a guard with a gun on his shoulder. We did not visit our neighbors as here were also cases of scarlatina, diphtheria vaccinia and suspects. There were two quarantine wards for measles and one for mumps. On account of the location and conditions of camps this hospital was crowded with cases of malarial fever, typhoid fever and pneumonia.

After being relieved from quarantine, I was placed on duty in a typhoid ward of twenty-five cots. Typhoid fever predominated in this hospital. There were always at least a hundred cases in the first stage of the disease and new cases arrived daily. If after a few weeks the patient's temperature was near normal he was at once removed to make room for new typhoid cases. Here I worked as night nurse from 8 p. m. to 8 a. m. There were generally four nurses on night duty and from four to eight on day duty. The average death rate in this ward alone was one a week. I remember one sad case of a nurse in my ward who contracted the disease and died in the same ward. After that I was always more careful in disinfecting stools, soiled linen and especially my hands. Typhoid fever was treated in various ways. Internally guiacol, phenacetine, salol and other antiseptics were used. The principal treatment was hydro-therapy. During the first weeks of the disease the temperature was taken every three hours and if above 103 degrees cold water was used in various ways. First an attempt

was made to reduce the temperature by the pack or sponge. If that failed the tub bath was tried. Generally the case responded to the pack and the benefits derived and after effects were better than from the tub bath. Often the fever was better controlled by a hot bath or by alcohol. The use of guiacol externally over the region of the liver was soon discontinued on account of its depressing effect upon the circulation. Turpentine stupes were used for tympanites; also soap and turpentine enemata. Milk every three or four hours was the only diet. I never saw a heavy diet in the ward and oh, how a boy would long for something to eat, "like mother used to make."

Cases of bronchitis, diarrhoea and fevers in camp were first sent to the regimental hospital for a few days and if the symptoms increased in severity were sent to the division hospital. I must not overlook one ward. Here were enough cases to fill Dr. Anderson's clinic for a whole term and then have some left.

While at the division hospital the hope of going to the Philippines had vanished, but at last, fortunately, we did go, Nov. 3, aboard the Pennsylvania. I will not attempt to describe life on a transport where a soldier travels as stock. To appreciate such join the army and go to the Philippines. Our hospital aboard consisted of twenty beds, which were at first filled, but after a few weeks out we did not have many cases of sickness. Most of those we had were typhoid fever. We anchored four days at Honolulu and the time was well spent in sightseeing. We would have liked to spend more time in that beautiful place, but we continued on to Manila. In spite of the diet, or slum, as it was called, we reached Manila without a death. We anchored about a mile from the city, where we were aboard for a month with only a few days of shore leave. Just after Christmas we sailed to Iloilo and after waiting in the harbor there for a month were ordered to Cavite. Having been aboard three months, and notwithstanding the food, quarters

and filth, (including the army "gray-backs") we had little sickness and went ashore with only two hospital patients.

It was shortly after landing that the insurgents attacked Manila and a few weeks after that time I, with Dr. Macrae, Jr., joined the First Iowa battalion and were ordered to Pasay, a bamboo village near Manila, and placed under Gen. Lawton. Two months were spent on out-post duty. Many cases of diarhoea occurred here, also some of small-pox. Vaccinations were in order and all who did not show good marks were "scratched," some as many as six or eight times. We joined our regiment at Malalos and started on the advance April 23rd, participating in all the skirmishes and engagements to San Fernando; two battalions of Iowa taking that town May 5, 1899.

If one wishes activity and excitement he should be on the firing line. Up in the morning at 3:30, breakfast of hard tack, coffee and some canned "stuff" (a good name), then tramp over rice fields under a tropical sun, ford or swim a few rivers, then through a bamboo jungle, wade to your neck in a swamp, take care of the exhausted and wounded and you can judge of life on the line. We should, of course, have had sterilized ice-cold water in our canteens, but we didn't. Occasionally we obtained water at a native well, but just to remove the layer of green from a puddle and that was very acceptable. At first we started prepared to take care of the entire army, but after "soldiering" a while hospital pouch and canteen was our burden; also our hundred yard gun, as our red cross was not recognized by the insurgents. When we stopped for the night we generally had for supper the same as for breakfast. Then we rolled up in our poucho with hat over the face to keep off mosquitoes, and with head on the canteen or rice dike had a comfortable sleep for what seemed just fifteen minutes.

After a few months in San Fernando we made another advance to Angeles. This was during the rainy season and that made it very inconvenient to dress and remove a wounded man

from the field. While at San Fernando sickness increased to an enormous extent. Sick call sounded at seven o'clock in the morning and until noon surgeons and hospital men took care of from 300 to 400 sick who reported for treatment. The cases consisted of diarrhoea, dysentery, fever and the dhobic itch. All drugs were either in tablet or powder form. Often a patient had to take twenty or thirty grains of loose quinine or bismuth t. i. d. It required several hours to dress the troublesome dhobic itch.

Sept. 6, 1899, we received orders to return into Manila, preparatory to going home. We were the last volunteers on the line and were indeed happy when we boarded the Senator for the promised land. We stopped for a few days at Nagasaki, Yokohoma and Tokio, Japan. After seeing this beautiful country, its people and all, we learned why it is called the "flowery kingdom." The voyage to San Francisco was uneventful, but how interesting and how beautiful the Golden Gate seemed to us on that bright sunny October day when we arrived.

I will close with the remark that the most highly respected and honored man of the Fifty-first Iowa, U. S. V., is Doctor Macrae, Jr.

ATHLETICS.

W. L. WILMOTH, '01, Editor.

There is little of interest to be said on the subject of athletics in college life, at this season of the year. This is the quiet season and students in general content themselves with their books and take only such exercise as conscience may dictate. After all there is something pleasing in the thought that the student can forget his physical needs in his deep search for knowledge, especially so when mother nature herself seems willing to take her periods of rest and be content to remain unnoticed for a time that her loveliness may be more apparent when

she once more puts on her garment of green, decked with flowers. Why should not the student be content to remain in oblivion for a time, absorbing knowledge from his books and professors that in the future he in turn may be able to shine more brightly to the world about him. Perhaps this is why there is little interest in athletics at the O. M. C. at the present time.

But if you would call around you would see that we are still keeping pace with the world, though in a quiet manner. Down in the basement of the college we have something new of which we are very proud—a new shower bath. See it for yourself and test its efficiency. The new punching bag is now in place in the room adjoining the bath and affords much quiet amusement and exercise to the weary student who goes down and takes a few turns to awaken him from his lethargy.

At the late meeting of the association a foot-ball manager of next year's team was chosen in the person of Mr. Lee. All seem to agree that Mr. Lee will do himself and his team and college justice in the coming season. Mr. Moore will act as captain and we expect things to move on from the very beginning of the season.

Just as a river moves silently along beneath its cover of ice, so athletics are keeping apace with the world-at-large and are moving on to success.

ALUMNI DEPARTMENT.

GEO. H. BICKNELL, M. D., '95, Editor.

We hear good reports of the work of Dr. Knode, class of '99, who is located at Sundance, Wyo.

Dr. F. J. Driver, class of '95, who is located in Shenandoah, Ia., has recently favored us with a call.

It has been reported that Dr. George Bjorkman, class of '95, has had smallpox. He is located in Marathon, Ia.

Dr. David Williams, class of '94, who is located at Treynor, Ia., had the misfortune to break his leg in a runaway accident this winter.

Dr. George Mogridge, class of '94, who is at present acting superintendent of the Glenwood, Ia., Institute for Feeble Minded Children, will address the students and faculty of the

O. M. C. in February on some subject connected with his line of work. The doctor is one of our ablest graduates and all alumni in the city should attend.

Dr. A. P. Haynes, class of '86, writes the editor of THE PULSE from Brainard, Nebr., in part as follows, under date of Jan. 10th:

In the last number of THE PULSE some one in Chicago who had been at the O. M. C. said 'the old wheel-horses of the O. M. C. are hard to beat.' It made me sad to think of the old 'wheel-horses' who had passed away and joined the silent majority since 1885-'86. Out of twelve or thirteen of them only four or five are now to be seen at the O. M. C. Gibbs, Milroy, Brown, Macrae, Sr., and Summers are still instructing the young idea. Ayers, Payton, McKenna, Thomas, Denise, Chase and Peebles have gone the way of all earthly things.

In THE PULSE I find no mention of anybody back of '95. I was in Omaha on Thanksgiving day and how changed was everything at the O. M. C. Grand is the new beside the old. Large, beautiful and up to date in the minutest details from the basement to the top story. Not one thing in the whole building did I see that I ever saw before, only the elk antlers on the first floor and I don't suppose that a student in the building knows where they came from, but the old 'wheel-horses' do. I shall never forget where they came from for I had to crawl on my hands and knees in the Big Horn mountains for three hundred yards, through a stream of water and over rocks and sage brush to get a shot at the elk that wore them. I sent them to the college in 1890 as a token of my esteem of the old 'wheel-horses.'

In 1885-'86 there was no mistake about the room one belonged to, whether he was a freshman or a senior. We all sat in one room. The only difference was that the boys who expected a sheepskin in the spring got more hard questions. The old building was cold and the windows would rattle on a windy day like hail on a tin roof. When it was very cold we would keep our coats and mits on to keep warm, except on quiz days, and if it was Gibbs' or Summers' quiz day it was always warm enough. But they are all right and the boys all have the highest regard for them. In those days there was no Xray machine, no

cold storage and no such laboratories as there are now. At noon we would go down in the basement to eat our lunch and quiz one another about what we knew or did not know and if we had stayed there till we settled all questions about what we did not know I am afraid we would have been there yet. In those days we did not spend much time germ or bug hunting or spend much time talking about antitoxines and serums.

Here's to the old 'wheel-horses' and everybody connected with the O. M. C. May you all live long and prosper is the wish of yours fraternally, A. P. HAYNES."

COLLEGE LOCALS.

LOCATION FOR SALE.—Unopposed medical practice in a railroad town of 500 population, 125 miles west of Omaha. No physician closer than ten or twelve miles, and country is well settled. A good chance for a lucrative practice in a progressive town. Possession about April 1st. Good reason for selling; property optional. For terms, etc., apply to PULSE.

"We are on the home stretch."—Seniors.

Preston has retired from the book business.

Sophomores are also cheating the barbers.

Seniors are anticipating some practical demonstrations on the Xray.

D. J. Reid's pleasant face is with us again after an absence of several days.

Were are the cigars, Wells? Have you invested in a horseless carriage yet?

Who was it that said "osteology treats of the diseases of the spinal column."

Douglas has a portable hospital. He is now studying the map and waiting for a diploma.

Sophomores are now absorbing anatomy under Dr. Macrae's penetrating method of instruction.

Towar is studying affections of the fifth nerve. He had one charming clinical subject not long ago.

Dr. Edmiston has returned from abroad and has given the juniors several instructive and pleasant hours.

Dr. Bicknell has kindly consented to give the seniors special instruction in the use of the ophthalmoscope and other appliances.

Miss Wood visited the O. M. C. not long ago. She expressed herself as agreeably surprised at the changes made since she last entered our doors.

Moore, '02, is playing center on the Y. M. C. A. basket-ball team and Lemar, '02, takes part in the field sports. The basket-ball team goes to Lincoln soon.

Each senior is preparing a paper on some subject to be presented to the class for discussion at regular weekly meetings, two papers each week. Papers have already been read by Mr. Bartlett and Mr. Betz.

A young man appeared at the clinic complaining of pain in the ankles and feet. He works at a packing house and stands on his feet ten hours a day. When Shockey was asked for a diagnosis he said: "It would make me tired."

At a meeting of the athletic association held last week W. A. Karr was elected to the office of vice president to fill the vacancy caused by the resignation of Mr. Whittaker of the Dental College. D. F. Lee, full back on last season's team, was elected manager for next season.

Allen took a punch at the new bag the other day and it did not react to the stimulus in the direction he thought it would so he is now bemoaning the fate of his amberstemed pipe and gets his pipe dreams from a cob which he says is no less acceptable for the fact that it had seen better days in the hands of its donor.

Douglas uses the following method in testing for albumen in the urine when daily examinations are required: "An ordinary medicine dropper is used to draw up about half an inch of urine and half an inch of dilute nitric acid. The cold ring test is nicely shown if albumen is present."

The young lady who was sick at the Brooks hotel is improving under the professional (?) attention of Mr. Mantor. The committee appointed at the last sophomore class meeting, called for that purpose, reported the necessity for a trained nurse so Mrs. Davies was put on the case and we feel sure that under the—what will we call it, ardent? I guess so—ardent attention

of Mr. Mantor and the experienced care of Mrs. Davies the patient will enjoy a rapid and complete recovery.—Sophs.

Since the last issue of THE PULSE the arrangement and indexing of the books in the library have been completed. This will facilitate the student in finding the volume desired. Valuable books pertaining to medicine are daily being added but further contributions will be greatly appreciated. The advantage of having a good library and study room should encourage all students to lend their assistance to further improvement of same.

We have never been over the road between here and Benson and since the experience of our friend C. L. W. we don't care to go over said road unless attended by an ample body-guard. Things must have been pretty lively in the immediate neighborhood of wherever it happened, judging from the disfigured appearance of C. L.'s usually smiling countenance, when he was met with such questions as "Couldn't you run fast enough? How does the other fellow look? Why didn't you move on?" But personally we'll accept C. L.'s explanation which was "fell off my wheel."—Soph.

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This preparation thoroughly eliminates the viscid secretions of the system, and is an invaluable remedy in all **rheumatic conditions.** Its **anodyne** properties speedily remove all **neuralgic pains,** and if a continued treatment is given, will insure a permanent cure.

In **Sciatica,** an abatement of the pain will commence after a few doses.

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In Lumbago and Neuralgic Headache it has been used with much success.

DOSE.-One or two teaspoonsful in water every two hours until pain ceases, then before meals and on retiring.

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" 16- " "	"	1.00 "
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Indicated in **Anæmia, Chlorosis and Scrofula.** In this preparation, by the association with peptone, the albuminates of Iron and Manganese are rendered easily digestible, and their ready assimilation with the blood is thus effected.

Solanæmic is essentially a **blood builder,** and is indicated in all cases resulting from a deficiency of red blood corpuscles. The evidences of its value are speedily exhibited by a change in the color of the skin, particularly of the lips, which become a ruddy red after **one week's** regular administration, thus proving conclusively an increase in the number of red blood corpuscles. It does not constipate, is non-astringent, and will not injure the teeth.

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This preparation contains in **palatable form** the active principles of Panax Schinseng (Ginseng). It is a valuable agent for increasing the secernent action of the digestive organs, thereby assuring the proper performance of their functions. It is consequently a most valuable remedy in **Phthisis** and all wasting diseases. It has been used with benefit as a remedy for **Indigestion,** Malnutrition, **Torpid Stomach,** Impaired Digestion, **Flatulency,** Heartburn and Colic. It is of great value in cases of Nausea resulting from excessive use of alcoholic stimulants. It is a **general stomachic restorative,** stimulating the appetite, **aiding digestion,** nutrition and assimilation and increasing weight and general strength.

DOSE.—One teaspoonful, or more as indicated, three times daily before meals. For young children one to fifteen drops at meals

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It will be found a valuable **hypnotic** and an **anodyne** of unusual merit. It is **sedative, astringent and anti-spasmodic.**

It has been used with great success in **whooping cough, asthma, emphysena,** and gives much relief to patients suffering with **phthisical cough.**

As a remedy in **hysteria** it has also proven an eminent success, and has a marked effect in cases of **dysmenorrhœa** and **diarrhœa,** especially when accompanied with **tormina.** Some practitioners have found it to be valuable in **neuralgia.**

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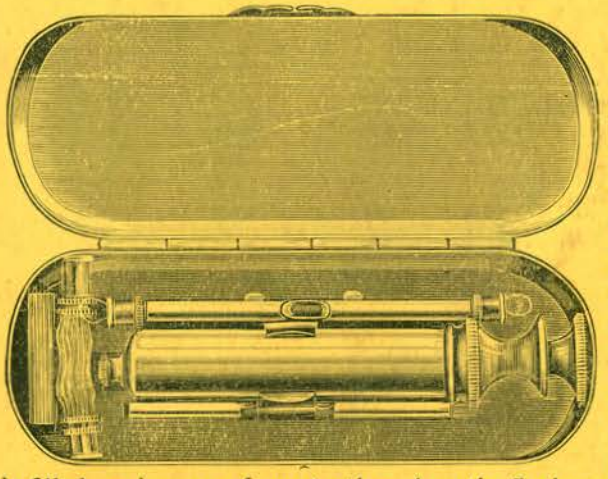

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